

#15



SEQUENCE LISTING

<110> Khan, Nissad
Benner, Robert

<120> Gene regulator

<130> 2183-5223US

<140> 10/028,075

<141> 2001-12-21

<150> EP 01203748.7

<151> 2001-10-04

<160> 175

<170> PatentIn Ver. 2.1

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Ala Gln Gly Val

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Met Leu Ala Arg

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Gly Val Leu Pro Ala Val Pro

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pdb/1FZV/1FZV-A

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Pro Ala Val Pro

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Leu Gln Gly Val Val Pro Arg Gly Val

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Gly Val Val Pro

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Leu Gln Gly Ala
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 1 5

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Val Leu Pro Ala Ala Pro Gln

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<210> 25

<211> 7

<212> PRT

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Val Leu Pro Ala Leu Ala Gln

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Leu Ala Gly Val

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Val Leu Ala Ala Leu Pro

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<212> PRT

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Val Leu Pro Ala Leu Ala

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Val Leu Pro Ala Leu Pro Gln

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<210> 30

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Val Leu Ala Ala Leu Pro Gln

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<210> 31

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<210> 32

<211> 7

<212> PRT

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Gly Val Leu Pro Ala Leu Pro

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<210> 33

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Gly Val Leu Pro Ala Leu Pro Gln

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<210> 34

<211> 13

<212> PRT

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<223> Description of Artificial Sequence: oligopeptide

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Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val Cys

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<210> 35

<211> 38

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<223> Description of Artificial Sequence: oligopeptide

<400> 35

Val Val Cys Asn Tyr Arg Asp Val Arg Phe Glu Ser Ile Arg Leu Pro
1 5 10 15

Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val Ala Leu
20 25 30

Ser Cys Gln Cys Ala Leu
35

<210> 36

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Arg Pro Arg Cys Arg Pro Ile Asn Ala Thr Leu Ala Val Glu Lys
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<210> 37

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Glu Gly Cys Pro Val Cys Ile Thr Val Asn Thr Thr Ile Cys Ala Gly
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Tyr Cys Pro Thr
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<400> 38

Ser Lys Ala Pro Pro Pro Ser Leu Pro Ser Pro Ser Arg Leu Pro Gly
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Pro Ser

<210> 39

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Ser Ile Arg Leu Pro Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser
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<211> 13

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Leu Pro Gly Cys

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Met Thr Arg Val
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Gln Val Val Cys
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signalling molecule

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1 5 10 15

Cys

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<223> Description of Artificial Sequence: peptide
signalling molecule

<400> 45

Arg	Pro	Arg	Cys	Arg	Pro	Ile	Asn	Ala	Thr	Leu	Ala	Val	Glu	Lys	Glu
1				5					10					15	

Gly	Cys	Pro	Val	Cys	Ile	Thr	Val	Asn	Thr	Thr	Ile	Cys	Ala	Gly	Tyr
			20					25					30		

Cys	Pro	Thr
		35

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<223> Description of Artificial Sequence: peptide
signalling molecule

<400> 46

Cys	Ala	Leu	Cys	Arg	Arg	Ser	Thr	Thr	Asp	Cys	Gly	Gly	Pro	Lys	Asp
1				5					10					15	

His	Pro	Leu	Thr	Cys
				20

<210> 47

<211> 18

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<223> Description of Artificial Sequence: peptide
signalling molecule

<400> 47

Cys	Arg	Arg	Ser	Thr	Thr	Asp	Cys	Gly	Gly	Pro	Lys	Asp	His	Pro	Leu
1				5					10					15	

Thr Cys

<210> 48

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<223> Description of Artificial Sequence: peptide
signalling molecule

<400> 48

Thr	Cys	Asp	Asp	Pro	Arg	Phe	Gln	Asp	Ser	Ser	Ser	Ser	Lys	Ala	Pro
1				5				10						15	

Pro	Pro	Ser	Leu	Pro	Ser	Pro	Ser	Arg	Leu	Pro	Gly	Pro	Ser	Asp	Thr
			20					25					30		

Pro	Ile	Leu	Pro	Gln
			35	

<210> 49

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signalling molecule

<400> 49

Leu	Gln	Gly	Val	Leu	Pro	Ala	Leu	Pro	Gln
1				5				10	

<210> 50

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<223> Description of Artificial Sequence: NMPF peptide

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Cys Pro Arg Gly Val Asn Pro Val Val Ser
1 5 10

<210> 51

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represent the NF-kappaB binding sequence

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agctcagagg gggactttcc gagag 25

<210> 52

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<223> Description of Artificial Sequence: peptide LQAV
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<400> 52

Leu Gln Ala Val
1

<210> 53

<211> 5

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pdb/1DE7/1DE7-A

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Leu Gln Gly Val Val
1 5

<210> 54

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<223> Description of Artificial Sequence:
pdb/1DE7/1DE7-A

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Leu Gln Gly Val Val Pro
1 5

<210> 55

<211> 5

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pdb/1DL6/1DL6-A

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Leu Asp Ala Leu Pro
1 5

<210> 56

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pdb/1QMH/1QMH-A

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Leu Gln Thr Val
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<210> 57

<211> 10

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pdb/1QMH/1QMH-A

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Leu Val Leu Gln Thr Val Leu Pro Ala Leu
1 5 10

<210> 58

<211> 4

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<223> Description of Artificial Sequence: pdb/1LYP/1LYP

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Ile Gln Gly Leu
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<210> 59

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Leu Pro Lys Leu
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<210> 60

<211> 5

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: pdb/1LYP/1LYP

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Leu Leu Pro Lys Leu
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<210> 61

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 pdb/1B9O/1B9O-A

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 <210> 62
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 Pro Ala Arg Pro
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 <210> 63
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 pdb/2KIN/2KIN-B

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 Met Thr Arg Ile
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pdb/1SMP/1SMP-I

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Leu Gln Lys Leu
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<210> 65
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pdb/1SMP/1SMP-I

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pdb/1SMP/1SMP-I

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Pro Glu Ala Pro
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<210> 67
<211> 9
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Leu Gln Lys Leu Leu Pro Glu Ala Pro

1

5

<210> 68

<211> 4

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: pdb/1ES/1ES7-B

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Pro Thr Leu Pro

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<210> 69

<211> 5

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: pdb/1ES/1ES7-B

<400> 69

Leu Gln Pro Thr Leu

1

5

<210> 70

<211> 4

<212> PRT

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Leu Gln Val Val

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<210> 71

<211> 4

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Pro Glu Leu Pro

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<210> 72

<211> 4

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<223> Description of Artificial Sequence:
pdb/1CQK/1CQK-A

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Pro Ala Ala Pro

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<210> 73

<211> 5

<212> PRT

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pdb/1CQK/1CQK-A

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Pro Ala Ala Pro Gln

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<210> 74

<211> 6

<212> PRT

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pdb/1CQK/1CQK-A

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Pro Ala Ala Pro Gln Val

1

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<210> 75

<211> 4

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Leu Pro Ala Leu

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<210> 76

<211> 4

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Pro Ala Leu Pro

1

<210> 77

<211> 5

<212> PRT

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<223> Description of Artificial Sequence: pdb/1BFB/1BFB

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Pro Ala Leu Pro Glu

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5

<210> 78

<211> 5

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pdb/1R2A/1R2A-A

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<210> 79

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Pro Pro Pro Ala Leu Pro Pro Lys Lys Arg
1 5 10

<210> 80

<211> 4

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pdb/1RLQ/1RLQ-R

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<211> 4

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<223> Description of Artificial Sequence:
pdb/1RLQ/1RLQ-R; swissnew/P01229/LSHB HUMAN

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<210> 82

<211> 4

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Leu Pro Gly Leu

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<210> 83

<211> 4

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pdb/1GJS/1GJS-A

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Leu Ala Ala Leu

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<210> 84

<211> 5

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pdb/1GJS/1GJS-A

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Leu Ala Ala Leu Pro

1

5

<210> 85
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pdb/1GBR/1GBR-B

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pdb/1A78/1A78-A

<400> 86
Val Leu Pro Ser Ile Pro
1 5

<210> 87
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pdb/1FZV/1FZV-A

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Met Leu Pro Ala Val Pro
1 5

<210> 88
<211> 4

<212> PRT
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<220>
<223> Description of Artificial Sequence: pdb/1JLI/1JLI

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Leu Pro Cys Leu
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<210> 89
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Pro Cys Leu Pro
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<210> 90
<211> 5
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pdb/1HSS/1HSS-A

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<210> 91
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pdb/1PRX/1PRX-A

<400> 91

Pro Thr Ile Pro

1

<210> 92

<211> 6

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence:

pdb/1PRX/1PRX-A

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Val Leu Pro Thr Ile Pro

1

5

<210> 93

<211> 6

<212> PRT

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<223> Description of Artificial Sequence: pdb/1RCY/1RCY

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Val Leu Pro Gly Phe Pro

1

5

<210> 94

<211> 4

<212> PRT

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<223> Description of Artificial Sequence: pdb/1A3Z/1A3Z

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Pro Gly Phe Pro

1

<210> 95

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1GER/1GER-A

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Leu Pro Ala Leu Pro
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<210> 96

<211> 5

<212> PRT

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<223> Description of Artificial Sequence: pdb/1BBS/1BBS

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Met Pro Ala Leu Pro
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<210> 97

<211> 17

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Met Xaa Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val
1 5 10 15

Cys

<210> 98

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Cys

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Lys Val Ile Gln Gly Ser Leu Asp Ser Leu Pro Gln Ala Val
1 5 10

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Leu Asp Ser Leu
1

<210> 103
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Val Leu Gln Ala Ile Leu Pro Ser Ala Pro Gln
1 5 10

<210> 104
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Leu Gln Ala Ile Leu
1 5

<210> 105
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<212> PRT
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<220>
<223> Description of Artificial Sequence: Mm.22430.1

<400> 105
Pro Ser Ala Pro
1

<210> 106
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Hs.63758.4

<400> 106
Lys Val Leu Gln Gly Arg Leu Pro Ala Val Ala Gln Ala Val
1 5 10

<210> 107
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Hs.63758.4

<400> 107
Leu Pro Ala Val
1

<210> 108
<211> 14
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Mm.129320.2

<400> 108

Leu Val Gln Lys Val Val Pro Met Leu Pro Arg Leu Leu Cys

1

5

10

<210> 109

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Mm.129320.2

<400> 109

Leu Pro Arg Leu

1

<210> 110

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Mm.129320.2

<400> 110

Pro Met Leu Pro

1

<210> 111

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Mm.22430.1

<400> 111

Pro Ser Ala Pro Gln

1

5

<210> 112

<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: P20155

<400> 112
Leu Pro Gly Cys Pro Arg His Phe Asn Pro Val
1 5 10

<210> 113
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Rn.2337.1

<400> 113
Leu Val Gly Cys Pro Arg Asp Tyr Asp Pro Val
1 5 10

<210> 114
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Rn.2337.1

<400> 114
Leu Val Gly Cys
1

<210> 115
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Hs.297775.1

<400> 115

Pro Gly Cys Pro Arg Gly

1

5

<210> 116

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Mm.1359.1

<400> 116

Leu Pro Gly Cys Pro

1

5

<210> 117

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
sptrembl/O56177/O56177

<400> 117

Val Leu Pro Ala Ala Pro

1

5

<210> 118

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
sptrembl/Q9W234/Q9W234

<400> 118

Leu Ala Gly Thr Ile Pro Ala Thr Pro

1

5

<210> 119
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/Q9W234/Q9W234

<400> 119
Pro Ala Thr Pro
1

<210> 120
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/Q9IYZ3/Q9IYZ3

<400> 120
Gly Leu Leu Pro Cys Leu Pro
1 5

<210> 121
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
sptrembl/Q9PVW5/Q9PVW5

<400> 121
Pro Gly Ala Pro
1

<210> 122
<211> 10
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
sptrembl/Q9PVW5/Q9PVW5

<400> 122

Leu Pro Gln Arg Pro Arg Gly Pro Asn Pro
1 5 10

<210> 123

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
sptrembl/Q9PVW5/Q9PVW5

<400> 123

Pro Arg Gly Pro
1

<210> 124

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Hs.303116.2

<400> 124

Gly Cys Pro Arg
1

<210> 125

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1DU3/1DU3-A

<400> 125

Gly Cys Pro Arg Gly Met

1

5

<210> 126

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pdb/1BIO/1BIO

<400> 126

Leu Gln His Val

1

<210> 127

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1FL7/1FL7-B

<400> 127

Val Pro Gly Cys

1

<210> 128

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
pdb/1HR6/1HR6-A

<400> 128

Cys Pro Arg Gly

1

<210> 129

<211> 4

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1H6/1HR6-A

<400> 129
Leu Lys Gly Cys
1

<210> 130
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1BFA/1BFA

<400> 130
Pro Pro Gly Pro
1

<210> 131
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1BFA/1BFA

<400> 131
Leu Pro Gly Cys Pro Arg Glu Val
1 5

<210> 132
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pdb/1BFA/1BFA

<400> 132
Cys Pro Arg Glu

1

<210> 133
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 swissnew/P01229/LSHB HUMAN

<400> 133
Met Met Arg Val Leu Gln Ala Val Leu Pro Pro Leu Pro Gln Val Val
 1 5 10 15

Cys

<210> 134
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 swissnew/P01229/LSHB HUMAN

<400> 134
Met Met Arg Val
 1

<210> 135
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 swissnew/P01229/LSHB HUMAN

<400> 135
Val Leu Pro Pro Leu Pro
 1 5

<210> 136
<211> 7

<212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 swissnew/P01229/LSHB HUMAN

 <400> 136
 Val Leu Pro Pro Leu Pro Gln
 1 5

 <210> 137
 <211> 7
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 swissnew/P01229/LSHB HUMAN

 <400> 137
 Ala Val Leu Pro Pro Leu Pro
 1 5

 <210> 138
 <211> 8
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:
 swissnew/P01229/LSHB HUMAN

 <400> 138
 Ala Val Leu Pro Pro Leu Pro Gln
 1 5

 <210> 139
 <211> 17
 <212> PRT
 <213> Artificial Sequence
 <220>

<223> Description of Artificial Sequence:
swissnew/P07434/CGHB PAPAN

<400> 139

Met Met Arg Val Leu Gln Ala Val Leu Pro Pro Val Pro Gln Val Val
1 5 10 15

Cys

<210> 140

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
swissnew/P07434/CGHB PAPAN

<400> 140

Leu Gln Ala Gly
1

<210> 141

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
swissnew/P07434/CGHB PAPAN

<400> 141

Val Leu Pro Pro Val Pro
1 5

<210> 142

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
swissnew/P07434/CGHB PAPAN

<400> 142
Val Leu Pro Pro Val Pro Gln
1 5

<210> 143
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swissnew/P07434/CGHB PAPAN

<400> 143
Ala Val Leu Pro Pro Val Pro
1 5

<210> 144
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swissnew/P07434/CGHB PAPAN

<400> 144
Ala Val Leu Pro Pro Val Pro Gln
1 5

<210> 145
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
swissnew/Q28376/TS HB HORSE

<400> 145
Met Thr Arg Asp
1

<210> 146
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 swissnew/Q28376/TSHB HORSE

<400> 146
Gln Asp Val Cys
 1

<210> 147
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 swissnew/Q28376/TSHB HORSE

<400> 147
Ile Pro Gly Cys
 1

<210> 148
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 sptrembl/Q9Z284/Q9Z284

<400> 148
Pro Ala Leu Pro Ser
 1 5

<210> 149
<211> 6
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
sptrembl/Q9UCG8/Q9UCG8

<400> 149

Leu Pro Gly Gly Pro Arg
1 5

<210> 150

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
sptrembl/Q9UCG8/Q9UCG8

<400> 150

Leu Pro Gly Gly
1

<210> 151

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
sptrembl/Q9UCG8/Q9UCG8

<400> 151

Gly Gly Pro Arg
1

<210> 152

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: XP_028754

<400> 152

Leu Gln Arg Gly

1

<210> 153

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: XP_028754

<400> 153

Leu Gln Arg Gly Val

1

5

<210> 154

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: XP_028754

<400> 154

Leu Gly Gln Leu

1

<210> 155

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: SignalP (CBS)

<400> 155

Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro

1

5

10

<210> 156

<211> 9

<212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: HLA molecule
 type I (A_0201)

 <400> 156
 Val Leu Gln Gly Val Leu Pro Ala Leu
 1 5

 <210> 157
 <211> 9
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: HLA molecule
 type I (A_0201)

 <400> 157
 Gly Val Leu Pro Ala Leu Pro Gln Val
 1 5

 <210> 158
 <211> 9
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: HLA molecule
 type I (A_0201)

 <400> 158
 Val Leu Pro Ala Leu Pro Gln Val Val
 1 5

 <210> 159
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: HLA molecule
type I (A_0201)

<400> 159

Arg Leu Pro Gly Cys Pro Arg Gly Val
1 5

<210> 160

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: HLA molecule
type I (A_0201)

<400> 160

Thr Met Thr Arg Val Leu Gln Gly Val
1 5

<210> 161

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MHC II (H2-Ak
15-mers)

<400> 161

Cys Pro Thr Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu
1 5 10 15

<210> 162

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MHC II (H2-Ak
15-mers)

<400> 162

Pro Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val
 1 5 10 15

<210> 163

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: HLA-DRB1*0101
 15-mers

<400> 163

Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val Ala Leu Ser
 1 5 10 15

<210> 164

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: HLA-DRB1*0101
 15-mers

<400> 164

Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val
 1 5 10 15

<210> 165

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: HLA-DRB1*0101
 15-mers

<400> 165

Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val Val Cys Asn Tyr
 1 5 10 15

<210> 166
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HLA-DRB1*0301
(DR17) 15-mers

<400> 166
Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln Val
1 5 10 15

<210> 167
<211> 15
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: HLA-DRB1*0301
(DR17) 15-mers

<400> 167
Ser Ile Arg Leu Pro Gly Cys Pro Arg Gly Val Asn Pro Val Val
1 5 10 15

<210> 168
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NMPF-56
peptide

<400> 168
Val Ala Pro Ala Leu Pro Gln
1 5

<210> 169
<211> 35
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF-62
peptide

<400> 169

Val Val Cys Asn Tyr Arg Asp Val Arg Phe Glu Ser Ile Arg Leu Pro
1 5 10 15

Gly Cys Pro Arg Gly Val Asn Pro Val Val Ser Tyr Ala Val Ala Leu
20 25 30

Ser Cys Gln
35

<210> 170

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF-67
peptide

<400> 170

Cys Pro Arg Gly Val Asn Pro
1 5

<210> 171

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF-70
peptide

<400> 171

Met Thr Arg Val Leu Gln Gly Val Leu Pro Ala Leu Pro Gln
1 5 10

<210> 172

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF-75
peptide

<400> 172

Ser Lys Ala Pro Pro Pro Ser Leu Pro Ser Pro Ser Arg Leu Pro Gly
1 5 10 15

Pro Cys

<210> 173

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF-56
peptide

<400> 173

Val Ala Pro Ala Leu Pro Gln
1 5

<210> 174

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF-71
peptide

<400> 174

Met Thr Arg Val Leu Pro Gly Val Leu Pro Ala Leu Pro Gln Val Val
1 5 10 15

Cys

<210> 175

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: NMPF peptide

<400> 175

Cys Arg Gly Val Asn Pro Val Val Ser

1

5

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